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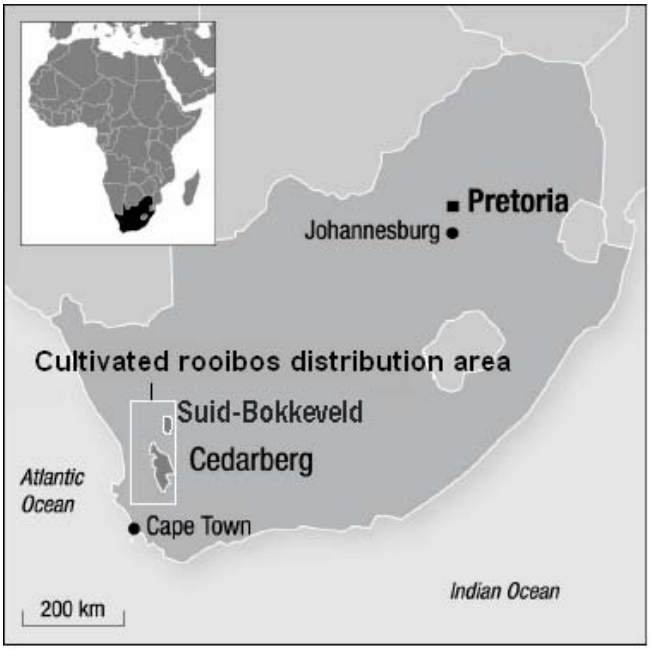
Title of the PhD work

"The traditional knowledge about the endemic herbal tea "Rooibos" in South Africa in a labelling context"

Research questions

The global context of the research

Figure 1: Mature rooibos plant (Photo M. Leclercq)



Picture 2: Localisation of the rooibos production area in South Africa

Since a few years, the "traditional ecological knowledge" of the local population has been clearly brought into the foreground by scientists and development stakeholders; it is acknowledged that local populations have thorough knowledge and sustainable practices given their usually long and close relationships with Nature (Roussel, 2003).

The cultural diversity of the local populations can generate some biodiversity, it is therefore important to protect it (one of the important events marking this new paradigm is the Biodiversity Convention in 1992). However, the term « traditional ecological knowledge » (TEK), even if largely used and highlighted by the international institutions, is polysemic and subject to debates.

Research works about TEK are in progress to define its empirical and cognitive contents, its role and the environmental, political or social stakes it is connected with.

The research program *Biodivalloc* falls within this general framework. This program is financed by the ANR (National Agency for the Research). It is labelled "From localised products to geographical indications: which tools to manage biodiversity in mega-biodiverse countries?". This program questions the articulation between the tools likely to increase the value of the local know-how on the one hand and the local representations and practices for the biodiversity management in six Southern countries on the other hand (Biodivalloc, 2005). To be more precise, it is aims at exploring the social (reorganisation of the local communities…) and environmental (especially about the agrobiodiversity) consequences of the setting up of those tools.

This PhD is inserted into the Biodivalloc framework. It consists of questioning TEK and their articulation with cultures and nature preservation. Its empirical field of research is the localised production of rooibos in South Africa (*Aspalathus linearis*, see picture 1).

The rooibos is an endemic species, typical from the South-African biome *fynbos*. The *fynbos* is characterised by its aridity and a high rate of vegetal endemism. Rooibos is one of the few suitable species for cultivation, it is a very important plant for the local populations who have gathered and cultivated it from a long time. The cultivated rooibos production area is mainly situated in the Western Cape, in the Southwest of South Africa (see Picture 2). The wild rooibos distribution area is widely being extended to the South; it is stretched out as far as the Cape Peninsula.

The rooibos is an herbal tea, because it does not contain theine and very few tannins. Leaves and stems are harvested each year between January and April. They are chopped into little pieces before going through an enzymatic oxidation which makes the rooibos taking on a red-brown colour. Rooibos pieces are then sun dried (oxidation and drying could be define as the first processing), before to be sifted and packaged (second processing). Rooibos is then drunk as an infusion.

Within the rooibos production area, landscapes and ecological characteristics are very different, which can have an influence on the rooibos quality. For example, the area situated to the east of Cedarberg Mountains is known for producing high quality rooibos (Grant, 2005).

The rooibos production was for a long time restricted to the gathering of plants by Khoesan[1] (Ginsberg, 1976). The rooibos cultivation was driven by the embargo on this kind of products during the Second World War (Morton, 1983). The 20th century therefore marks the turning point of the production type: the wild rooibos gathering practiced by local populations is progressively and largely replaced by a large scale cultivation mainly managed by white farmers, who still hold the majority of the cultivable lands.

The rooibos market has considerably grown in the last years, especially due to the international demand, which reaches 60% of the production (Gertz *et al.*, 2006). The recent western countries' interest for herbal teas, in particular those that have some healing properties, is one of the reasons why the rooibos market is expanding: in 2003, the total production was 10 000 tons. The annual production and the fields' surface area have increased twofold in 10 years (Rooibos trade and investment report, 2004). The rooibos economic status has thus progressively moved from a domestic consumption in rural area to an important remunerative resource for the local populations. Since a few years, some by-products mainly intended for western countries have been launched on the market: cosmetics (shampoos, creams, soaps…) and also drinks (iced tea…). On the contrary, the domestic market is steadily stable since a decade.

The economic stakes linked to this resource must have at the same time increased, which must have some significant effects on the producers' social organisation. The increasing of those stakes may have implications on the practices and knowledge linked to this resource management.

The labelisation context

This study proposes to focus on the characterization and analysis of local populations' knowledge, know-how, practices and representations about rooibos, to understand their diversity and their dynamics; to provide new insights about means to better understand those

[1] This generic term gathers two distinct populations: the Khoekhoe or Hottentots, who were herders and gatherers and the San or Bushmen, who were hunters and gatherers

TEK and their role in the context of the collective construction of a product qualification process.

They are many processes of marketing and qualification development about rooibos: labelling by Ecocert and FLO (Fair-Trade Labelling Organisation), and more recently the project to construct a Geographical Indication. About 15% of the total rooibos production is labelled by Ecocert and FLO, with important variation according to the producers.

South Africa does not yet recognize nor provide specific protection for GIs, except for wines and spirits (Laing, 2003). For the other kinds of products, the Trade Marks is the only mean to establish a registered GI in South Africa (Sautier *et al.*, 2007). However, the development of a specific system of protection is currently being debated publicly, under the drive from the agricultural departments of four South-African provinces. Recently, interest at national level has been raised. Because of its characteristics (endemism, growing market…) the rooibos is one of the products targeted to be a candidate for a GI (Sautier *et al.*, 2007): some evolutions of the legal framework are to be expected in the near future.

The rooibos production stakeholders

The production involves about 400 farmers; most of them are concerned by the need to protect their product and markets. A GI committee has been established to discuss and set up the GI strategy and to define the product specification. The GI committee is in charge of three dimensions: protecting the industry against misuse of the name "rooibos", ensuring better quality control and developing biodiversity strategies. However, the committee has been established to ensure the representatively of the whole stakeholders in the industry, because there is a high differentiation level between the producers.

There are different types of rooibos producers: the white producers, who have settled in the past in the area and hold the majority of lands; and the coloured producers, who overall group the descents of the Khoesan. Khoesan populations had been living in the southwest of South Africa before the colonization. They were decimated by diseases and acts of violence committed by the settlers, who arrived at the Cape peninsula at the end of the 16th century (Fauvelle-Aymar, 2004 and 2006; Penn, 2005).

During the colonisation, white farmers had priority for becoming landowners: this unequal repartition of lands has been largely increased by the apartheid. At present, they still possess the majority of the cultivable lands. At the same time, coloured people were deprived of property ownership, that's why they were economically dependant on white farmers in this region. Since the end of apartheid, the land reform entitled coloured population to become property owners, but in a limited and unequal way: objectives concerning the field surface area which had to be redistributed are not yet reached (Anseeuw, 2004). The land access restriction for the coloured motivated them to organise their own way of production, like associative organizations. Nowadays, the rooibos producers are more differentiated: apart from large and small scale farmers, there are also some commercial farmers (white and coloured), who are often independent and have a limited share in the rooibos market.

However, white producers generally possess some large-scale farms, which produce about 97% of the rooibos; whereas most of the coloured producers are members of two cooperatives that produce rooibos for the fair trade and organic market. Rooibos processing is dominated by 8 large companies that collect, transform (second processing) and sell the rooibos to the intermediaries. Small-scale farmers manage almost all the steps of the supply chain, but they remain largely dependant of the processors for the second processing. Having a real equity in the participation inside the industry is still a challenge, which could be improved by a collective GI.

To sum up, we could say that rooibos is a specific resource, which is at the interface of the territory and the industry, and at the interface of the natural and the political resource.

Objectives and research questions

Objectives of this research are to characterize the whole relationships between local populations and their TEK, the localised production of rooibos, and the different strategies to increase the value of the resource through labelling. We can represent these relationships by a diagram:

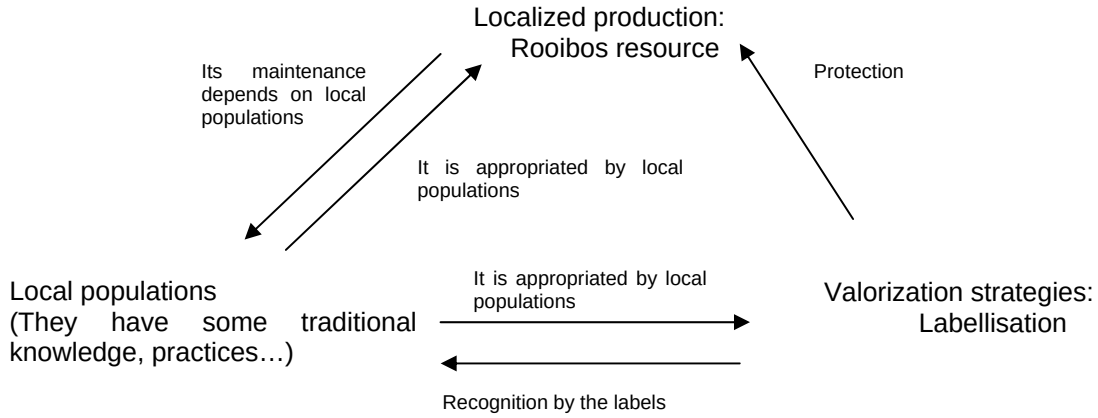


Figure 3: Relationships between localized production, local populations and their strategies to increase the value of the resource

Through these three objects and their relationships, we can ask many questions, which this study will try to answer:

- *Knowledge, know-how and the resource management:* What kinds of knowledge do have the local populations of the rooibos and its environment? How do the local populations characterize the rooibos, its specificities, its lifespan, and its physiological needs? How do they perceive, classify and use the different varieties? What are the specificities of each production way?
- *Valorisation strategies:* Do the producers have some specific strategies to increase the value of the resource or to protect it? Do they develop their own "valorisation strategies" or do they use some exogenous tools like "organic" or "fair-trade" labels? Are the "Geographical indications" labelling, which increase the value of certain localised practices or know-how is used? In that case, how do the local populations manage to use these tools, how do they appropriate them? Do the knowledge, know-how and practices have a special role in those valorisation strategies? Do these dynamics modify the ancient local systems?
- *Stakes which are connected with the rooibos production and the exchanges between producers:* Is the rooibos itself, or are the rooibos production practices claims from specific populations? Are there some exchange processes between various knowledges? In that case, can those "knowledge hybrids" bring technical, institutional or political innovations?

These questions are constructed from the rooibos production in South Africa, but they can also fill out general questions about the recognition means for the TEK, and about contents and stakes borne by the TEK notion. In which way could the protection of rooibos production by different labels contribute to maintain the TEK and to recognize that the local

populations are the managers of their environment, through their relationships to this localised production?

Methods and tools

For this research, we will have to approach some local knowledge and practices in an empirical way: this process belongs to the ethno sciences scope. The study of the use and representations of vegetal resources belongs more precisely to ethno biology. I will favour an *internal* enquiry method, which is focused on relating the rooibos management and valorisation processes from the stakeholders point of view. As Levi-Strauss said: “Each culture represents a unique case to which we have to devote the most meticulous attention to describe it first and to try to understand it then” (Lévi-Strauss, 1983: 45, personal translation). It is this particular look, peculiar to anthropology, which allow to understand the singularity of the societies and their way of running. This look will be there particularly useful to *describe* the practices and knowledge of stakeholders in order to *understand* their relationships to the natural resources farmed as local products (Descola, 1986 and 2005). This point of view will be useful to consider each cultural group and their knowledge on the same level.

Enquiry method comprises ethnographic enquiry tools, like interviews with the different stakeholders, about the resource representations, the use of the space, the different production techniques, and the different techniques of observation peculiar to anthropology. Interviews will be conducted into English or into Afrikaans, with a translator.

The particular situation of South Africa and of the rooibos production area also requires having a dynamic perspective of the enquiry. A diachronic point of view is essential towards the apartheid heritage, and towards the recent raise of the rooibos market. Moreover, the diversity of the production area characteristics and the stakes linked up with the land access require a special approach. The geography tools will be particularly useful to spatially understand data from the enquiry field.

This PhD scientific supervision (anthropology, history, geography…) and its registration in pluridisciplinary research teams (the MNHN/IRD UR 169 Patis, UMR Innovation and the Department of Social Anthropology at the University of Cape Town) is the reflection of this methodological choice.

Hypothesis

Preliminary results

The producers are organised in different groups, which possess different ways of appropriating natural resources. They seem to have different production practices, based on different knowledge registers. During my Master 2 training research, I could identify a tendency which has to be deepened: rooibos coloured producers (small scale farmers) who are organised into a co-operative, seem to be in a “heritage process” of the local resource and to appropriate it, and to valorise their organic way of production (Leclercq, 2006).

These small scale farmers have recently created a production co-operative which is at the origin of new stakes. Indeed, the “organic” and “fair-trade” labels which have been obtained a few years ago by this co-operative, have allowed the producers to considerably increase their incomes from the rooibos, but it is not the only objective. It has also allowed

producers to codify their production practices; it is a long process which has started since the beginning of the rooibos cultivation. This codification allowed coloured producers to differentiate their production practices from the white producers' ones, who are differentiating themselves through branding based on Trade Marks.

The preliminary study has also shown that the rooibos seems to allow the coloured producers to become well established on the fair-trade and organic markets, and therefore to increase the differentiation between their practices and the white producers' ones. Coloured producers have also gained the international institutions recognition.

First hypothesis: It seems that the industry, the cultivation processes, the production practices and the strategies are different according to the producers. The distribution of the different knowledge and strategies will be very important for the PhD research.

Those facts seem to generate some moves in the different rooibos production farmers' relationships. For example, the access to the organic and fair-trade markets has allowed the small-scale farmers to increase the prestige of their own co-operative management know-how. However, the white producers are interested since a while in this growing market: why do they invest in this market and does it change the farmers' relationships?

Expected results

These research orientations will be useful to put the identity, political or social claims of the different stakeholders in perspective, and also their positions in the local economic stakes.

Second hypothesis: The political and social stakes created by the labelling of the practices (and therefore the labelling of the knowledge) of the coloured producers would let us assume that those knowledge make up a political and identity resource for these populations, who can form some reference "strategic groups".

Those different groups can certainly exchange some knowledge, which could trigger different kinds of innovations. Those innovations (especially technical innovations) therefore help some groups to strengthen their rights to farm, and to reinforce their political and territorial identity based historically and linked to this resource use. The rooibos and the knowledge linked with it would be a resource for being recognized (Honneth, 2000).

Third hypothesis: Moreover, the recent production growth may certainly have significant effects on producers' social organisation and strategies, and also on the practices and knowledge linked with this resource use, which is divided between the farming development for the new markets and the preservation of the rooibos endemic and specific character.

Discussion

From a general point of view, the object of this research is to enrich the understanding of the TEK notion, by *characterizing* their role in the context of rooibos production dynamism in South Africa, by *determining* the different exchanges between the "strategic groups", at last by *understanding* the mobilization of the TEK by international institutions and by local populations regarding this concrete case.

Beyond the interest of those TEK concerning the biodiversity conservation, it is also recognized that they have their own value, identity value, relating to their heritage value, economic value, and they are important for the natural resource farming. It is therefore

important to preserve them, which implies three stages: to describe them to know better them and to recognize a specific status, and at last to protect them (by adapted juridical and institutional tools).

By exploring the various stakes linked to a localised production in a South African area, in which the relationships between societies and nature have not yet been studied in depth, this PhD work has the objective to bring some reflections concerning the question of the TEK valorisation and the ways of its protection. In this way, this research results could certainly fall within the framework of the state guarantee system in South Africa of GI (which is in progress), concerning certain productions and the knowledge connected with.

The research will also bring some knowledge to the various French and South-African institutions partner (MNHN, CIRAD, Pretoria University, University of Cape Town…) which are involved in researches about the same scientific stakes or in programs to supply the valorisation of the rooibos, and that do not possess so many data on this resource, which is nevertheless largely consummate.

We could define the whole expected results of this research in this way:

- to better know the TEK linked to a specific vegetal resource;
- Contributing to better grasp the ways to increase the value of a local resource from the knowledge which are linked to the local resource;
- Filling out the reflection and the scientific debates on the contents and the stakes of the TEK notion;
- Participating to the international scientific debates on the possible articulation between the recognition of the TEK and the better preservation of nature and culture.

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